

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

Amendment of the Commission's Space
Station Licensing Rules and Policies

IB Docket No. 02-34

2000 Biennial Regulatory Review --
Streamlining and Other Revisions of
Part 25 of the Commission's Rules
Governing the Licensing of, and
Spectrum Usage by, Satellite Network
Earth Stations and Space Stations

IB Docket No. 00-248

To: The Commission

**COMMENTS OF
THE BOEING COMPANY**

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SUMMARY

The Commission should take steps to improve its current licensing procedures for satellite spectrum and orbital assignments. Boeing believes that a number of important improvements can and should be implemented, which could expedite the processing of applications, without compromising the Commission in its statutory role of regulating the use of spectrum in the public interest. A number of recommended improvements to the licensing process are included in the comments filed by the Satellite Industry Association, which Boeing fully supports.

While the Commission should take steps to improve its current licensing process, the Commission should reject outright the wholly unproven first-come, first-served approach that is outlined in the Notice of Proposed Rule Making (“*NPRM*”). A first-come, first-served option could cause significant harm to the satellite communications industry in the United States by inadvertently inviting speculation and trafficking in satellite licenses, enabling inefficient spectrum use by licensees, and ultimately resulting in fewer service offerings to the public.

Finally, the Commission should maintain its financial qualification rules for satellite applicants. Financial qualification rules provide important benefits to the licensing process in addition to milestone enforcement or anti-trafficking rules.

While Boeing has other positions and comments on the issues raised in the Commission’s *NPRM*, these points are expressed fully in SIA’s comments in the proceeding and are not repeated here.

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The Boeing Company ("Boeing"), by its attorneys and pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415 (2001), respectfully submits these Comments in response to the above-captioned Notice of Proposed Rule Making ("*NPRM*") regarding proposals to reform the Commission's rules and policies for licensing satellite networks.

I. INTRODUCTION

Boeing is participating in this proceeding as the world's largest satellite manufacturer. Since 1961, Boeing has developed and produced state-of-the-art space and communications systems for military, commercial and scientific uses. Boeing is also a global leader in the launch of satellites, providing launch services through its Delta family of launch vehicles and through the innovative Sea Launch program.

Boeing is also participating in this proceeding as a satellite network applicant and licensee. Boeing is authorized by the Commission to launch and operate a mobile satellite service (“MSS”) network in the 2 GHz MSS band, which Boeing designed to provide CNS/ATM services to the aviation industry. Boeing also holds blanket FCC licenses to provide aeronautical mobile satellite services (“AMSS”) in the United States on a non-conforming basis in the Ku-band. Finally, Boeing is an applicant for authority to launch and operate a broadband global communications networks using non-geosynchronous (“NGSO”) satellites operating in the Ku-band. As a result of Boeing’s diverse contributions to the satellite industry, Boeing has a very large stake in the effectiveness of the Commission’s Space Station licensing process and Boeing is uniquely qualified to contribute to the Commission’s efforts in this proceeding.

Boeing acknowledges that improvements are needed in the Commission’s process for licensing satellite networks. In recent years, the licensing of networks in some satellite services has slowed appreciably. The Commission should not respond to these incremental difficulties, however, by abandoning its current system and replacing it with a wholly unproven first-come, first-served approach. Instead, significant improvements can and should be made to the current licensing structure. Boeing therefore urges the Commission to make a concerted effort to improve its existing licensing approach rather than replace it.

II. THE COMMISSION SHOULD WORK TO IMPROVE ITS SATELLITE LICENSING RULES AND POLICIES

The Commission began developing its licensing approach for satellite networks only a few years after the launch of the first communications satellite. The Commission established its first satellite application processing round in 1970 concurrent with its creation of its Domestic

Satellite Service.¹ Since that time, the Commission has been engaged in continuing efforts to identify and implement improvements to its satellite licensing structure. As a result of these efforts, the Commission's licensing approach is recognized internationally for promoting fair and efficient licensing decisions that provide satellite operators with the regulatory certainty that they need to construct global communications networks.

Despite the improvements that have been implemented over the years, the Commission's licensing process has recently become significantly more complicated due to increased scarcity in available satellite spectrum and the introduction of non-U.S. licensees in the U.S. market. The growing complexity of the satellite licensing issues confronting the Commission has resulted in increased delays in recent years in developing some new satellite services and in issuing licenses. As a result of these delays, Boeing agrees that the current process can and should be improved.

Fortunately, numerous measures are available to improve the current system. Some of these improvements are outlined in the Commission's *NPRM*. A number of other improvements are suggested in the comments that were filed by the Satellite Industry Association ("SIA").

Boeing has joined the consensus comments of the Satellite Industry Association ("SIA"), which oppose the Commission's first-come, first-served proposal and instead offer a thoughtful, balanced and concrete approach to improving the satellite licensing process that the Commission has utilized successfully for the past three decades. Boeing believes it is especially significant that almost every U.S. satellite company joins in the SIA position, based on their practical experience, both with the domestic licensing process and, in some cases, with the licensing

¹ See *Establishment of Domestic Communication-Satellite Facilities by Nongovernmental Entities*, 22 FCC Rcd 86, 98 (1970) (setting a time period for the filing of applications by applicants who desire to have their proposals considered in conjunction with the first proposal).

processes of other administrations. Boeing hopes the Commission will appreciate the significance of such a unified industry position on this important subject.

The SIA comments propose improvements both to the licensing process and also to other regulatory measures that would help free up Commission resources to address licensing issues. With respect to application processing, the SIA comments suggests ways to expedite the process of placing applications on public notice and developing a record in an application proceeding. SIA also expresses strong support for the Commission's proposal to limit the amount of time permitted for competing applicants to negotiate potential solutions to the sharing of scarce spectrum and orbital resources. With respect to other regulatory issues, SIA supports the Commission's proposal to require electronic filing of satellite applications. SIA also suggests improvements in technical disclosure requirements for applicants, and in the process for authorizing replacement satellites.

Boeing believes that the suggestions that are included in the SIA comments could reduce substantially the time required to process satellite applications. Such measures would help expedite the launch of new networks, thus increasing the amount of competitive satellite communications services that are available to consumers. Boeing therefore urges the Commission to adopt each of the proposals that are included in the SIA comments.

III. THE COMMISSION SHOULD REFRAIN FROM ADOPTING THE UNPROVEN FIRST-COME, FIRST SERVED APPROACH OUTLINED IN THE *NPRM*

Rather than focusing on efforts to improve the existing licensing process, the Commission's *NPRM* first raises the possibility of abandoning the entire system and replacing it with a wholly unproven approach to granting satellite licenses. Boeing views with alarm the Commission's apparent willingness to entertain such a radical departure from its statutory obligation to regulate the use of satellite spectrum in the public interest. The proposal described

in the *NPRM* would entail the issuance of a satellite authorization to any qualified entity that is the first to file for a new assignment, without the addition of necessary safeguards to protect against speculation, adversarial filings, trafficking and inefficient spectrum use.

While the Commission recites a number of ways in which this radical new approach might accelerate the process, Boeing views the first-come, first-served option as rife with possibilities to produce the opposite result – potentially paralyzing the U.S. licensing process, impairing U.S. leadership in this industry and motivating applicants to consider the use of other licensing administrations. Adopting this new approach, simply in pursuit of administrative expedience, would constitute a needless, self-imposed setback to what has been until now one of the Commission’s great policy successes.

A. A First-Come, First-Served Approach Would Disregard the Complex Sharing Issues Involved in Applications for Satellite Services, Diminishing the Efficient Use of Spectrum Resources

The first-come, first-served approach outlined in the *NPRM* appears to ignore the inherent complexity of satellite applications. Proposals for new networks and services usually involve intricate variables regarding the sharing by multiple incumbent and future networks of limited spectrum and orbital resources, along with overlaps regarding the geographic regions to be served by each operator.² A simplistic approach of only considering a single application at a time would diminish inappropriately the attention that is given to sharing opportunities, almost certainly resulting in fewer satellite authorizations and less service to the user public.

In contrast, the Commission’s long standing use of processing rounds has been an effective vehicle enabling the authorization of as many systems as possible using limited satellite

² In contrast, the FM Radio service – the source of the Commission’s previous experience on the use of a first-come, first-served licensing approach – involved a planned service with a far less complex sharing environment.

spectrum, in turn maximizing the range of service offerings to the public. In effect, the first-come, first-served proposal would shift from the current parallel process in which the Commission considers and ultimately grants many satellite licenses in a band to a serial process in which the time to grant a single license might be faster, but the time to grant many licenses (assuming that many licenses are granted at all) would be longer and the ultimate service offerings would be diminished.

B. A First-Come, First-Served Approach Could Diminish the Success of U.S. Licensees in the ITU Coordination Process

The use of a potentially lengthy serial process to consider satellite applications would also be much more likely to produce problematic inconsistencies between the Commission's domestic process and the international coordination process at the ITU. For example, if five overlapping satellite service applications were filed on five separate days of one week under the existing process, the Commission would forward initial ITU submissions covering the anticipated requirements for all five applicants at the same time, staking a claim to multiple spectrum rights for all the U.S. filers at one time, and ultimately processing all five applications.

Under the first-come, first-served approach, the Commission would only consider the first application, and may only submit one filing to the ITU and ultimately grant a single license. Only if that license were forfeited after grant would any other applications be considered or processed. In that scenario, it would be highly unlikely that any of the other four filers would ever have appreciable rights under the ITU coordination process, so their service would never materialize. The result would be a significant net loss to U.S. filers and the user public.

Additional coordination problems would result if the Commission utilized the ITU Appendix 4 information of the first filed applicant to establish priority for that applicant and, if unsuccessful, any other applicant that followed. For example, the failed licensee might submit a

network design in its Appendix 4 information and subsequently coordinate the spectrum requirements in such a way that would not support the needs of later-assigned licensees. In contrast, under the Commission's current approach, the diverse requirements of all the applicants are incorporated in the Commission's Appendix 4 submission to the ITU for their entire group. This retains important flexibility, both for the Commission and for the eventual U.S. licensees in that satellite service.

C. A First-Come, First-Served Approach Would Permit Manipulation Through the Filing of Speculative and Adversarial Applications

The first-come, first-served system described by the Commission would also be open to significant anti-competitive manipulation. Some applicants could file a very complex multi-band, multi-slot, multi-service area application and effectively block other service providers from an opportunity to go forward for a period of years – at least until after the first license has been granted and has had one or more years of milestone reviews by the Commission. Furthermore, the Commission's proposal for affiliation restrictions – 33% – could be evaded easily by entities seeking to file multiple adversarial applications designed to block other operators. As a result, Boeing is concerned that the first-come, first-served proposal would constitute a virtual invitation to entities to submit numerous adversarial applications, creating a virtual choke point for satellite licensing.

The potential for abuse is greater in the case of NGSO applications, where the first-come, first-served approach would apparently allow an applicant to preempt all available spectrum for NGSO service in a satellite band. The Commission appears to acknowledge this possibility in its *NPRM*, claiming that the Commission may attempt to prevent such outcomes by limiting the first applicant to “the amount of spectrum that is sufficient from a technical

perspective to enable the service provider to provide its proposed service.”³ Such an approach, however, seems unworkable and unenforceable.

It would be virtually impossible for the Commission to determine the precise amount of spectrum “necessary” to successfully provide a particular service on a case-by-case basis. The subjectivity of such determinations would result in a long, cumbersome process the results of which would never be secure from a process of appeals. Furthermore, such an approach would preclude the spectrally efficient result that was achieved in the Commission’s recent Ku-band NGSO FSS proceeding, in which the Commission recognized that by far the most efficient and appropriate approach would be to license each applicant to operate across the entire band and require licensees to develop approaches for spectrum sharing.

D. A First-Come, First-Served Approach Would Also Reward Expedience at the Expense of Innovation of Spectrally Efficient Engineering

Not only would the Commission be confronted with a wave of “paper satellite” applications under a first-come, first-served approach, but it would likely be confronted with a wave of very poorly produced applications. A first-come, first-served policy rewards only expedience – not innovation, efficient spectrum design, improved service offers, and, most of all, not good engineering. Satellite applicants will feel compelled to prepare and file satellite applications as quickly as possible. This conflict would be particularly strong for legitimate satellite operators that must be successful in maintaining access to sufficient orbital and spectrum resources to remain competitive in the provision of services to consumers. As a result of these pressures, the prevailing strategy in the industry would likely change to file it first and fix it later.

³ *NPRM*, ¶ 54.

Clear evidence exists that the first-come, first-served approach that is outlined in the *NPRM* will produce such unfortunate results. For example, the ITU's generally unregulated approach to accepting filings for satellite notification and coordination priority has produced a significant paper satellite problem that the international community, with the support of the Commission and U.S. licensees, is having significant difficulty resolving. Not only has the ITU been inundated with an unmanageable wave of speculative and adversarial paper satellite applications, but the ITU has had difficulty in processing the applications, in part because the operators and administrations that submitted the filings had little or no incentive to ensure that adequate care was taken in their preparation.

The Commission should not make the same mistakes in its domestic licensing process. The sum result of these and other problems would likely plunge a critical and successful industry with critical public interest benefits into a "grand experiment" that would likely be highly disruptive at best and could be ruinous at worst. As discussed in SIA's comments in this proceeding, the "safeguards" proposed in the *NPRM* to prevent misuse of a first-come, first-served approach would be wholly inadequate to address the problems that would result. Furthermore, the *NPRM* makes no claim of producing any concomitant public benefits through the adoption of a first-come, first-served approach, aside from a small reduction in the Commission's workload at any given time. Even this potential benefit – a faster licensing process – is unlikely to be realized due to the wave of speculative and adversarial filings that would almost certainly result.

Boeing hopes that the overwhelming negative reaction of the entities most directly affected by the satellite licensing process will persuade the Commission that a first-come, first-served approach would be a significant mistake. Such an option is ill advised particularly in

light of the fact that numerous improvements can easily be made to the Commission's existing licensing structure. The Commission's long standing use of satellite processing rounds has proven itself to be a workable system that has stood the test of time in many different circumstances. As discussed in SIA's comments, the existing approach: (1) enables the adoption of equitable solutions to mutual exclusivity between competing applicants, (2) helps to identify customized spectrum sharing approaches that are appropriately tailored for the satellite services in question, (3) increases the productive and efficient use of spectrum, (4) facilitates the development of new satellite communications services, and (5) provides increased regulatory certainty for licensees considering expenditures of hundreds of millions of dollars for the construction of satellite communications networks. In light of the recognized benefits of the Commission's existing satellite licensing approach, its retention and improvement is the only sound policy choice.

IV. THE COMMISSION SHOULD ALSO CONTINUE TO REQUIRE APPLICANTS TO DEMONSTRATE THEIR FINANCIAL QUALIFICATIONS.

For decades the Commission successfully enforced financial qualification requirements on applicants for satellite authorizations and for other communications services. As the Commission has recognized repeatedly, an applicant's financial capacity is a "significant factor" in determining whether it is qualified to hold a license.⁴ This is because "licensees without sufficient available resources spend a significant amount of time attempting to raise the

⁴ See *Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands*, 9 FCC Rcd 5936, 5948-5949 (1994) ("*Big LEO Order*").

necessary financing and . . . those attempts often end unsuccessfully.”⁵ Because of this fact, “[a] financial requirement is in the public interest when . . . the Commission is authorizing a new service and does not want the implementation of service to the public unduly delayed.”⁶

The Commission’s authority to impose financial qualification requirements stems from the Communications Act, which instructs the Commission to ensure that all applicants are qualified to hold a license.⁷ To satisfy this obligation, the Commission may prescribe necessary qualifications, including requiring an applicant to demonstrate that it is financially qualified to construct and operate its proposed system.⁸

Despite the Commission’s historical use of financial qualification requirements, the Commission suggests in its *NPRM* that financial qualification rules are “duplicative” with milestone requirements because “[b]oth are designed to ensure that applicants are positioned to provide service to the public in a timely manner.”⁹ In reality, however, financial qualification requirements serve as a necessary precedent and complement to milestones, not as a substitute for them.

First, the financial qualifications process gives the Commission an opportunity to winnow out companies at the application stage, helping the Commission to apportion spectrum and

⁵ *Id.* (citing *National Exchange Satellite, Inc.*, 7 FCC Rcd 1990 (Com. Car. Bur. 1992); *Rainbow Satellite, Inc.*, Mimeo No. 2584 (Com. Car. Bur., Feb. 14, 1985); *United States Satellite Systems, Inc.*, Mimeo No. 2583 (Com. Car. Bur., Feb. 14, 1985) (domestic satellite licenses declared null and void for failure to begin implementation as required by license)).

⁶ See *Land Mobile Satellite Service for the Provision of Various Common Carrier Services*, 4 FCC Rcd 6029, 6032 (1998) (“*Land Mobile Memorandum Opinion & Order*”).

⁷ See 47 U.S.C.A. § 208(b) (2001).

⁸ See *id.*

⁹ *NPRM*, ¶ 102.

orbital resources between multiple applicants. Second, while milestones may be able to reduce (but not eliminate) the incidence of warehousing of spectrum resources, milestones do not prevent licensees from filing speculative applications and engaging in greenmail-like practices.

Concern about speculative satellite system proposals is shared by the international community, which is currently engaged in an effort to eliminate “paper satellites” – an international effort that enjoys the strong support of the Commission and SIA member companies. Accordingly, in order to ensure that scarce spectrum resources are used to serve the public interest, the most appropriate and effective tool at the Commission’s disposal is the use of financial qualification requirements at the outset of a proceeding, rather than relying only on remedial measures one or more years following licensing.

V. CONCLUSION

For the foregoing reasons, Boeing urges the Commission to reject the ill-advised first-come, first-served approach that is outlined in its *NPRM*. Instead, the Commission can and should streamline and improve the current system. As outlined in the consensus comments of SIA, a number of such improvements have been identified and could be easily implemented to greatly improve the current system. Such an approach would avoid unnecessary and potentially risky experimentation with the future of the U.S. satellite industry. This approach would also

help to ensure that the Commission retains and builds upon its unquestioned leadership role in the development and regulation of the commercial satellite communications industry.

Respectfully submitted,

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